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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog No. BAM-74-001-EX

Anti-glyoxalase I (GLO1) (Clone 6F10)

BACKGROUND

Glyoxalase I (GLO1) is an enzyme that plays a role in the detoxification of methylglyoxal (MG), a side-product of glycolysis, via condensation with glutathione to produce S-lactoyl-glutathione. GLO1 is a zinc metalloenzyme whose crystal structure has been solved. The bacterial and yeast enzymes are monomeric while the mammalian one is homodimeric and its sequence is well conserved. GLO1 is found over-expressed in some tumors. GLO1 has also been suggested to be involved in anxiety diseases, autism, and Alzheimer's disease.

The antibody was produced from the hybridoma cultured in serum-free medium and purified under mild conditions by propriety chromatography processes.

Product type	Primary antibodies
Host	Rat
Source	Culture supernatant
Form	Liquid Purified monoclonal antibody (IgG) 1mg/ml in PBS, 50% glycerol, filter-sterilized
Volume	100 μg
Concentration	
Specificity	
Antigen	Recombinant GST-fused mouse glyoxalase I (full length)
Clone	6F10
Isotype	Rat IgG2b kappa

Application notes	WB, IC, ELISA Other applications are not tested. **Recommended use** **Recommended dilutions** Western blotting: ~ x 1,000 Optimal dilutions/concentrations should be determined by the end user. Data Link: UniProtKB/Swiss-Prot Q9CPU0 (LGUL_MOUSE) **Staining Pattern**
Cross reactivity	Specific to human, simian, and mouse glyoxalase I. Other species are not tested.
Storage	-20°C (for long period; -70°C)
References	1) Chen F *et al* "Role for glyoxalase I in Alzheimer's disease" *Proc Natl Acad Sci USA* **101**: 7687.7692 (2004) PMID: 15128939 2) Junaid MA *et al* "Proteomic studies identified a single nucleotide polymorphism in glyoxalase I as autism susceptibility factor" *Am J Med Genet A* **131**: 11.17 (2004) PMID: 15386471 3) Hovatta I *et al* "Glyoxalase 1 and glutathione reductase 1 regulate anxiety in mice" *Nature* **438**: 662.666 (2005) PMID: 16244648

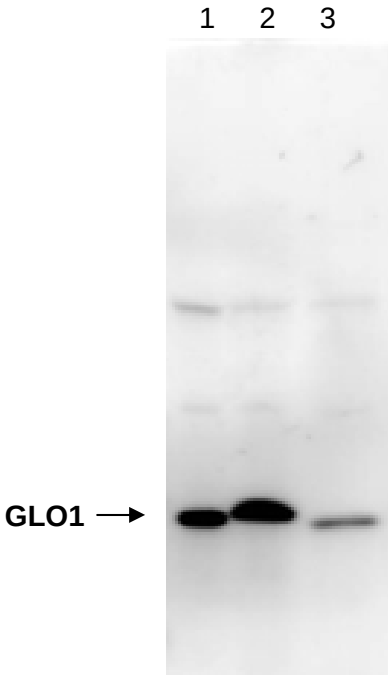

Fig.1 Detection of GLO1 protein by Western blotting with antibody 6F10.
Samples are whole cell extracts. Mouse GLO1 shows a single band of 27 kDa while human and simian ones show 29 kDa.
Lane 1: COS-1 (simian)
Lane 2: L929 mouse)
Lane 3: HeLa (human)

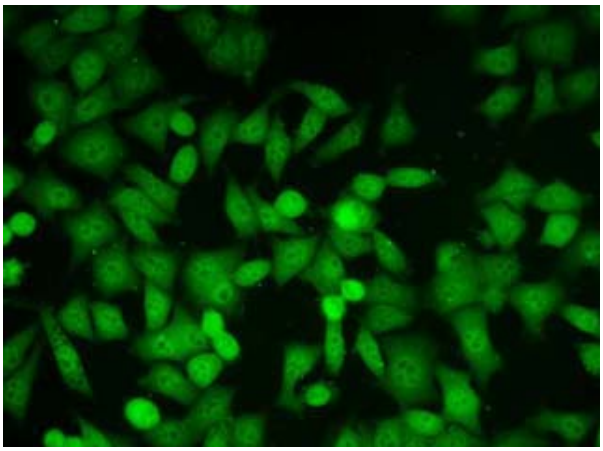

Fig.2 Immunofluorescent staining of HeLa cells with antibody 6F10.

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TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN
http://www.cosmobio.co.jp/index_e.asp E-mail: export@cosmobio.co.jp
Phone : +81-3-5632-9617 FAX : +81-3-5632-9618